	Proof gallons
20 pounds equal to	2.2
1 pound equal to	.1
½ pound equal to	.1
Total	35.1

That is, 321½ pounds of spirits at 86 proof is equal to 35.1 proof gallons. The equivalent gallonage for 20 pounds is found from the column 200 pounds by moving the decimal point one place to the left; that for 1 pound from the column 100 pounds by moving the decimal point two places to the left; that for the ½ pound from the column 500 pounds by moving the decimal point three places to the left.

Fractional gallons beyond the first decimal ascertained through use of this table will be dropped if less than 0.05 or will be added as 0.1 if 0.05 or more. The wine gallons (at 60 degrees Fahrenheit) may be determined by dividing the proof gallons by the proof. For example: 35.1 divided by 0.86 equals 40.8 wine gallons.

(Sec. 201, Pub. L. 85–859, 72 Stat. 1358, as amended (26 U.S.C.5204))

§ 30.64 Table 4, showing the fractional part of a gallon per pound at each percent and each tenth percent of proof of spirituous liquor.

This table provides a method for use in ascertaining the wine gallon (at 60 degrees Fahrenheit) and/or proof gallon contents of containers of spirits by multiplying the net weight of the spirits by the fractional part of a gallon per pound shown in the table for spirits of the same proof. Fractional gallons beyond the first decimal will be dropped if less than 0.05 or will be added as 0.1 if 0.05 or more.

Example. It is desired to ascertain the wine gallons and proof gallons of a tank of 190 proof spirits weighing 81,000 pounds.

81,000×0.14718=11,921.58=11,921.6 wine gallons.
81,000×0.27964=22,650.84=22,650.8 proof gallons.

This table may also be used for ascertaining the quantity of water required to reduce to a given proof. To do this, divide the proof gallons of spirits to be reduced by the fractional part of a proof gallon per pound of spirits at the proof to which the spirits are to be reduced, and subtract from the quotient the net weight of the spirits before reduction. The remainder will be the pounds of water needed to reduce the spirits to the desired proof.

Example. It is desired to ascertain the quantity of water needed to reduce 1,000 pounds of 200 proof spirits, 302.58 proof gallons, to 190 proof:

302.58 divided by 0.27964 equals 1,082.03 pounds, weight of spirits after reduction.
1.082.03 minus 1,000 equals 82.03 pounds, weight of water required to reduce to desired proof.

The slight variation between this table and Tables 2, 3, and 5 on some calculations is due to the dropping or adding of fractions beyond the first decimal in those tables. This table may also be used to determine the wine gallons (at 60 degrees Fahrenheit) of distilled spirits containing dissolved solids from the total weight of the liquid and its apparent proof (hydrometer indication, corrected to 60 degrees Fahrenheit). The proof gallons may then be found by multiplying the wine gallons by the true proof.

Example. 5,350 pounds of blended whisky containing added solids

Temperature °F.....75.0°
Hydrometer reading.....92.0°
Apparent proof.....85.5°
Obscuration.....0.5°
True proof.....86.0°

5,350.0 lbs.×0.12676 (W.G. per pound factor for apparent proof of 85.5°)=678.2 wine gallons
678.2 W.G.×0.86=583.3 proof gallons

(Sec. 201, Pub. L. 85–859, 72 Stat. 1358, as amended 1362, as amended (26 U.S.C. 5204, 5211))

§ 30.65 Table 5, showing the weight per wine gallon (at 60 degrees Fahrenheit) and proof gallon at each percent of proof of spirituous liquor.

This table may be used to ascertain the weight of any given number of wine gallons (at 60 degrees Fahrenheit) or proof gallons of spirits by multiplying the pounds per gallon by the given number of gallons of the spirits. The table should be especially useful where it is desired to weigh a precise quantity of spirits.

Example. It is desired to ascertain the weight of 100 wine gallons of 190 proof spirits:

6.79434×100 equals 679.43 pounds, net weight of 100 wine gallons of 190 proofs spirits.

Example. It is desired to ascertain the weight of 100 proof gallons of 190 proof spirits.

3.57597×100 equals 357.60 pounds, net weight of 100 proof gallons of 190 proof spirits.

The slight variation between this table and Tables 2 and 3 on some calculations is due to dropping or adding of fractions beyond the first decimal on those tables. This table also shows the weight per wine gallon (at the prevailing temperature) corresponding to each uncorrected reading of a proof hydrometer.

(Sec. 201, Pub. L. 85–859, 72 Stat. 1358, as amended (26 U.S.C. 5204))

§ 30.66 Table 6, showing respective volumes of alcohol and water and the specific gravity in both air and vacuum of spirituous liquor.

This table provides an alternate method for use in ascertaining the quantity of water needed to reduce the strength of distilled spirits by a definite amount. To do this, divide the alcohol in the given strength by the alcohol in the required strength, multiply the quotient by the water in the required strength, and subtract the water in the given strength from the product. The remainder is the number of gallons of water to be added to 100 gallons of spirits of the given strength to produce a spirit of a required strength.

Example. It is desired to reduce spirits of 191 proof to 188 proof. We find that 191 proof spirits contains 95.5 parts alcohol and 5.59 parts water, and 188 proof spirits contains 94.0 parts alcohol and 7.36 parts water.

95.5 (the strength of 100 wine gallons of spirits at 191 proof) divided by 94.0 (the strength of 100 wine gallons of spirits at 188 proof) equals 1.01.

7.36 (the water in 188 proof) multiplied by 1.01 equals 7.43.

7.43 less 5.59 (the water in 191 proof spirits) equal 1.84 gallons of water to be added to each 100 wine gallons of 191 proof spirits to be reduced.

This rule is applicable for reducing to any proof; but when it is desired to reduce to 100 proof, it is sufficient to point off two decimals in the given proof, multiply by 53.73, and deduct the water in the given strength. Thus, to reduce 112 proof spirits to 100 proof:

1.12×53.73–47.75 equals 12.42 gallons of water to be added to each 100 wine gallons of spirits to be reduced.

This table may also be used to obtain the proof gallonage of spirituous liquor according to weight and percent of proof.

Example. It is desired to determine the number of gallons in 400 pounds of spirits of 141 percent of proof. Multiply the weight of one gallon of water in air by the specific gravity in air of the spirits—8.32823 by 0.88862—the product (7.40063) divided into 400 gives 54.049 wine gallons, which rounded to the nearest hundredth is 54.05 and multiplied by 1.41 gives 76.2 proof gallons. In rounding off where the decimal is less than five, it will be dropped; if it is five or over a unit will be added.

(Sec. 201, Pub. L. 85–859, 72 Stat. 1358, as amended (26 U.S.C. 5204))

§ 30.67 Table 7, for correction of volume of spirituous liquors to 60 degrees Fahrenheit.

This table is prescribed for use in correcting spirits to volume at 60 degrees Fahrenheit. To do this, multiply the wine gallons of spirits which it is desired to correct to volume at 60 degrees Fahrenheit by the factor shown in the table at the percent of proof and temperature of the spirits. The product will be the corrected gallonage at 60 degrees Fahrenheit. This table is also prescribed for use in ascertaining the true capacity of containers where the wine gallon contents at 60 degrees Fahrenheit have been determined by weight in accordance with Tables 2, 3, 4, or 5. This is accomplished by dividing the wine gallons at 60 degrees Fahrenheit by the factor shown in the table at the percent of proof and temperature of the spirits. The quotient will be the true capacity of the container.

Example. It is desired to ascertain the volume at 60 degrees Fahrenheit of 1,000 wine gallons of 190 proof spirits at 76 degrees Fahrenheit:

1,000×0.991 equals 991 wine gallons, the corrected gallonage at 60 degrees Fahrenheit.

Example. It is desired to ascertain the capacity of a container of 190 proof spirits at 76 degrees Fahrenheit, shown by Table 2 to contain 55.1 wine gallons at 60 degrees Fahrenheit:

55.1 divided by 0.991 equals 55.6 wine gallons, the true capacity of the container when